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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/627,013	07/27/2000	Naohito Takeuchi	2309/0H444	9726

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Darby & Darby PC  
805 Third Avenue  
New York, NY 10022

EXAMINER

PRATT, CHRISTOPHER C

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS2

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/627,013	TAKEUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christopher C Pratt	1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extension of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the international Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group 1, claims 1-12, in Paper No. 6 is acknowledged.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it does not clearly define the required elements of applicant's invention. Specifically, claim 1 fails to define how many fibers types are required. Claim 1 could be interpreted to require as many as four distinct fibers: rayon, primary, micro, and either mirco or other fibers. The claim could also be interpreted to require as few two different fiber types if the rayon fibers are microfibers and the primary fiber are said other fibers. For the purposes of examination the latter interpretation will be used.

Claim 1 is also indefinite because of the phrase "microfibers extending from the primary fibers." The intended meaning of this phrase cannot be determined. Are the microfibers connected to the primary fibers somehow?

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over American Viscose Corporation (AVC), <sup>AB</sup>~~US~~ 687041. U-30-07  
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AVC is concerned with the creation of a water-decomposable fibrous sheet used as a wipe or toilet tissue (p. 3, lines 114-120). Said sheet comprising at least 3% fibrillated rayon (p. 3, lines 46-50) mixed with non-fibrillated fibers (p. 3, lines 70-74). The examiner notes that all fibers have a predetermined length. Said fibrillated fibers are microfibers (p. 3, lines 105-107). Said microfibers are entangled with the non-fibrillated fibers.

AVC does not measure the degree of beating of the fibrillated fibers by the same measurements as applicant; however, AVC teaches a beating time of 1-12 hours "or more (p. 3, lines 17-24)." It is the examiner's position that this opened ended beating time would inherently result in applicant's 700cc limitation because AVC's range would cover virtually all beating degrees.

AVC fails to disclose applicant's claimed surface friction resistance property. It would have been obvious to a person having ordinary skill in the art to create AVC's sheet to have a resistance of at least three rubbing cycles. The skilled artisan would have been motivated to increase said resistance by the desire to create a more durable

fabric that has a better ability to clear dirt and debris from a surface. Surface friction is easily increased or decreased by modifying the amount of fibrillation and the amount of fibrillated fibers.

AVC teaches heat and pressure, which would inherently result in hydrogen bonding (p. 3, lines 80-82).

AVC teaches said microfiber to have a length anticipating applicant's claimed microfiber length (p. 3, lines 107-110). AVC is silent with respect to the length of the non-fibrillated fibers. It would have been obvious to a person having ordinary skill in the art to utilize non-fibrillated fibers having a length of 1.8 to 10mm. Such a modification would have been motivated by the desire to fill in the gaps in AVC's teachings and to optimize the disintegrability properties of the sheet.

With respect to claim 5, the examiner takes official notice that it is common and well known in the art to use multi-ply toilet paper. As such, it would have been obvious to a person having ordinary skill in the art to utilize multiple layers of AVC's invention. Such a modification would have been motivated by the desire to increase the comfort and durability of the paper. The examiner notes that the facts asserted to be common and well-known are capable of instant and unquestionable demonstration as being well-known. To adequately traverse such a finding, an applicant must specifically point the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.

AVC teaches a papermaking process (p. 1, lines 23-25).

AVC teaches applicant's claimed dtex (p. 3, lines 105-107).

AVC is silent with respect to the basis weight of the fabric. It would have been obvious to a person having ordinary skill in the art to alter the size of the fabric. Such a modification would have been motivated by the desire to render said fabric suitable for a variety of end use applications.

AVC is silent with respect to with respect to the decomposability and strength of the fabric. If these properties are not inherent in the sheet of AVC it would have been obvious to a person having ordinary skill in the art to alter the decomposability and strength of AVC's sheet by increasing or decreasing the amount of binder or the amount of entanglement of the fibers. The skilled artisan would have been motivated to alter the strength of the sheet by the desire to optimize the balance between having a toilet paper that can be easily dissolved yet still strong enough for durable use.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over American Viscose Corporation (AVC), US 687041 in view of Viazmensky et al (5292581).

AVC fails to teach the use of a water-jetting treatment. Viazmensky is concerned with the creation of a water disintegratable nonwoven fabric used as a wipe or toilet paper (col. 1, lines 2-20). AVC teaches hydroentangling said fabric (abstract). It would have been obvious to a person having ordinary skill in the art to hydroentangle the fabric of AVC. Such a modification would have been motivated by the desire to increase the wet strength of the fabric.

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Pratt whose telephone number is 703-305-6559. The examiner can normally be reached on Monday - Friday from 7 am to 4 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher C. Pratt  
November 21, 2002

  
CHERYL A. JUSKA  
PRIMARY EXAMINER